



JPW

JUL 09 2008

Dkt. 0575/59154-AZ/JPW/AHC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Virginia W. Cornish  
Serial No. : 10/705,644 Examiner: Robinson, Hope A.  
Filed : November 10, 2003 Art Unit: 1652  
For : IN VIVO SCREEN USING CHEMICAL INDUCERS OF  
DIMERIZATION

Notice of  
Allowance issued : May 29, 2008

Confirmation No. : 4768

1185 Avenue of the Americas  
New York, New York 10036  
July 7, 2008

Mail Stop Issue Fee  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

COMMUNICATION TO CORRECT ERROR IN NOTICE OF ALLOWANCE

This Communication is submitted after the mailing of a Notice of Allowance in connection with the above-identified application. The issue fee is due August 29, 2008 and has not yet been paid. Accordingly, this Communication is being timely filed.

This Communication is filed to request the issuance of a corrected Notice of Allowance in connection with the subject application. Recently applicants' undersigned attorney has become aware of an error in the official Notice of Allowance issued for the subject application, a copy of which is attached hereto as Exhibit A.



Applicants : Virginia W. Cornish  
Serial No. : 10/705,644  
Filed : November 10, 2003  
Page 2 of 3 of July 7, 2008 Communication

Specifically, the May 29, 2008 Notice of Allowance incorrectly lists the Title of Invention as follows:

Title of Invention:

METHODS AND ASSAYS FOR SCREEING PROTEIN TARGETS

A corrected Notice of Allowance should read as follows:

**--TITLE OF INVENTION:**

**IN VIVO SCREEN USING CHEMICAL INDUCERS OF DIMERIZATION--**

Applicants contend that the correct Title of the Invention may be found in the Filing Receipt, in the inventors' Declaration and Power of Attorney filed on November 10, 2003, and in page 1 of the specification as filed on November 10, 2003. A copy of the Filing Receipt is attached hereto as Exhibit B. A copy of the inventors' Declaration and Power of Attorney is attached hereto as Exhibit C. A copy of page 1 of the specification is attached hereto as Exhibit D. Accordingly, applicants request that a corrected Notice of Allowance be issued.

If a telephone interview would be of assistance in advancing consideration of this Communication, applicants' undersigned attorney invites the Patent Office to telephone him at the number provided below.

No fee is deemed necessary in connection with the filing of this Communication. However, if any fee is required authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

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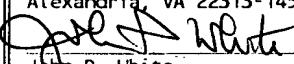
Respectfully submitted,



John P. White  
Registration No. 28,678  
Attorney for Applicants  
Cooper & Dunham LLP  
1185 Avenue of the Americas  
New York, New York 10036  
(212) 278-0400

I hereby certify that this correspondence  
is being deposited this date with the  
U.S. Postal Service with sufficient  
postage as first class mail in an  
envelope addressed to:

Mail Stop Issue Fee  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

 July 7, 2008  
John P. White Date  
Reg. No. 28,678

# EXHIBIT A



UNITED STATES PATENT AND TRADEMARK OFFICE

7590  
JUL 09 2008  
PATENT & TRADEMARK OFFICE  
U.S. DEPARTMENT OF COMMERCE

UNITED STATES DEPARTMENT OF COMMERCE  
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NOTICE OF ALLOWANCE AND FEE(S) DUE

05/29/2008

John P. White  
Cooper & Dunham LLP  
1185 Avenue of the Americas  
New York, NY 10036

EXAMINER

ROBINSON, HOPE A

ART UNIT

PAPER NUMBER

1652

DATE MAILED: 05/29/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,644	11/10/2003	Virginia W. Cornish	59154-AZ/JPW/G	4768

TITLE OF INVENTION: METHODS AND ASSAYS FOR SCREEING PROTEIN TARGETS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$300	\$0	\$1020	08/29/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# EXHIBIT B



CIPR  
JUL 09 2008  
PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE

59154-AZ

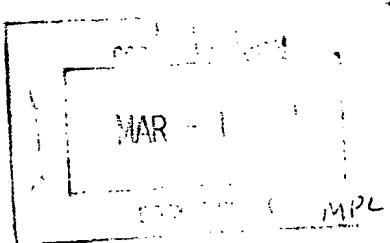
JP!

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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/705,644	11/10/2003	1652	403	59154-AZ/JPW/G	23	22	2

John P. White  
Cooper & Dunham LLP  
1185 Avenue of the Americas  
New York, NY 10036



CONFIRMATION NO. 4768

FILING RECEIPT



\*OC000000011978591\*

Date Mailed: 02/26/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Virginia W. Cornish, New York, NY;

Assignment For Published Patent Application

The Trustees of Columbia University in the city of New York.;

Domestic Priority data as claimed by applicant

This application is a DIV of 09/768,479 01/24/2001  
which is a CIP of 09/490,320 01/24/2000 ABN

Foreign Applications

If Required, Foreign Filing License Granted: 02/25/2004

Projected Publication Date: 06/03/2004

Non-Publication Request: No

Early Publication Request: No

\*\* SMALL ENTITY \*\*

Title

In vivo screen using chemical inducers of dimerization

Applicants : Virginia W. Cornish  
U.S. Serial No. : 10/705,644  
Filed : November 10, 2003

Exhibit B

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**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

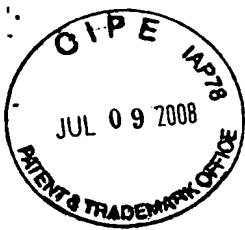
This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

# EXHIBIT C



## DECLARATION AND POWER OF ATTORNEY

As a below-named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

### AN IN VIVO SCREEN USING CHEMICAL INDUCERS OF DIMERIZATION

the specification of which:

(check one)

is attached hereto.

was filed on January 24, 2001 as  
Application Serial No. 09/768,479  
and was amended \_\_\_\_\_  
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 (a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International Application which designated at least one country other than the United States, listed below. I have also identified below any foreign application for patent or inventor's certificate, or PCT International Application having a filing date before that of the earliest application from which priority is claimed:

#### Prior Foreign Application(s)

#### Priority Claimed

<u>Number</u>	<u>Country</u>	<u>Filing Date</u>	<u>Yes</u>	<u>No</u>
N/A				

Applicants : Virginia W. Cornish  
U.S. Serial No. : 10/705,644  
Filed : November 10, 2003

Exhibit C.

*Declaration and Power of Attorney*

Page 2

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below:

<u>Provisional Application No.</u>	<u>Filing Date</u>	<u>Status</u>
N/A		

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States Application(s), or Section 365(c) of any PCT International Application(s) designating the United States listed below. Insofar as this application discloses and claims subject matter in addition to that disclosed in any such prior Application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56, which became available between the filing date(s) of such prior Application(s) and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
09/490,320	January 24, 2000	Pending

And I hereby appoint

John P. White (Reg. No. 28,678); Christopher C. Dunham (Reg. No. 22,031); Norman H. Zivin (Reg. No. 25,385); Jay H. Maioli (Reg. No. 27,213); William E. Pelton (Reg. No. 25,702); Robert D. Katz (Reg. No. 30,141); Peter J. Phillips (Reg. No. 29,691); Wendy E. Miller (Reg. No. 35,615); Richard S. Milner (Reg. No. 33,970); Robert T. Maldonado (Reg. 38,232); Paul Teng (40,837); Richard F. Jaworski (Reg. No. 33,515); Elizabeth M. Wieckowski (Reg. No. 42,226); Pedro C. Fernandez (Reg. No. 41,741); Gary J. Gershik (Reg. No. 39,992); Jane M. Love (Reg. No. 42,812); Spencer H. Schneider (Reg. No. 45,923) and Raymond A. Diperna (Reg. No. 44,063).

and each of them, all c/o Cooper & Dunham LLP, 1185 Avenue of the Americas, New York, New York 10036, my attorneys, each with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to receive the patent, to transact all business in the Patent and Trademark Office connected therewith and to file any International Applications which are based thereon under the provisions of the Patent Cooperation Treaty.

## Declaration and Power of Attorney

Please address all communications, and direct all telephone calls, regarding this application to:

John P. White

Reg. No.

28,678

Cooper & Dunham LLP  
1185 Avenue of the Americas  
New York, New York 10036  
Tel. (212) 278-0400

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or  
first joint inventor Virginia W. Cornish

Inventor's signature ✓ JMG WCA

Citizenship United States of America Date of signature March 22, 2001

Residence 21 Claremont Avenue, Apt. #33, New York, New York 10027

Post Office Address same as residence address

Full name of joint  
inventor (if any) \_\_\_\_\_

Inventor's signature \_\_\_\_\_

Citizenship \_\_\_\_\_ Date of signature \_\_\_\_\_

Residence \_\_\_\_\_

Post Office Address \_\_\_\_\_

Full name of joint  
inventor (if any) \_\_\_\_\_

Inventor's signature \_\_\_\_\_

Citizenship \_\_\_\_\_ Date of signature \_\_\_\_\_

Residence \_\_\_\_\_

Post Office Address \_\_\_\_\_

# EXHIBIT D



Docket No: 59154-AZ/JPW/GJG

**AN IN VIVO SCREEN USING CHEMICAL INDUCERS OF DIMERIZATION**

This application is a divisional of U.S. Serial No. 09/768,479, filed January 24, 2001, which is a continuation-in-part of U.S. Serial No. 09/490,320, filed January 24, 2000, now abandoned, the contents of all of which are hereby incorporated by reference.

This invention has been made with government support under National Science Foundation grants CHE-9626981, CHE-9977402, and CHE-9984928. Accordingly, the U.S. Government has certain rights in the invention.

Throughout this application, various publications are referenced by author or author and date. Full citations for these publications may be found listed alphabetically at the end of the specification immediately preceding the claims. The disclosures of these publications in their entireties are hereby incorporated by reference into this application in order to more fully describe the state of the art as known to those skilled therein as of the date of the invention described and claimed herein.

**Field of Invention**

The disclosed invention relates to the evolution of enzymes *in vivo*, and drug screening *in vivo* through the use of chemical inducers of protein dimerization.

**Background of the Invention**

Initial efforts to design protein catalysts (enzymes) relied on the modification of individual proteins. (Kaiser 1984; Knowles 1987) Despite some successes, (Wharton 1985; Wilks 1986; Hilvert 1985, 1989, 1994; Imperiali 1994; Johnson 1993) protein engineering has proven to be difficult and has suggested that notions of how enzymes work may still be naive. Combinatorial techniques, which rely on generating and screening large pools

Applicants : Virginia W. Cornish  
U.S. Serial No. : 10/705,644  
Filed : November 10, 2003

**Exhibit D**